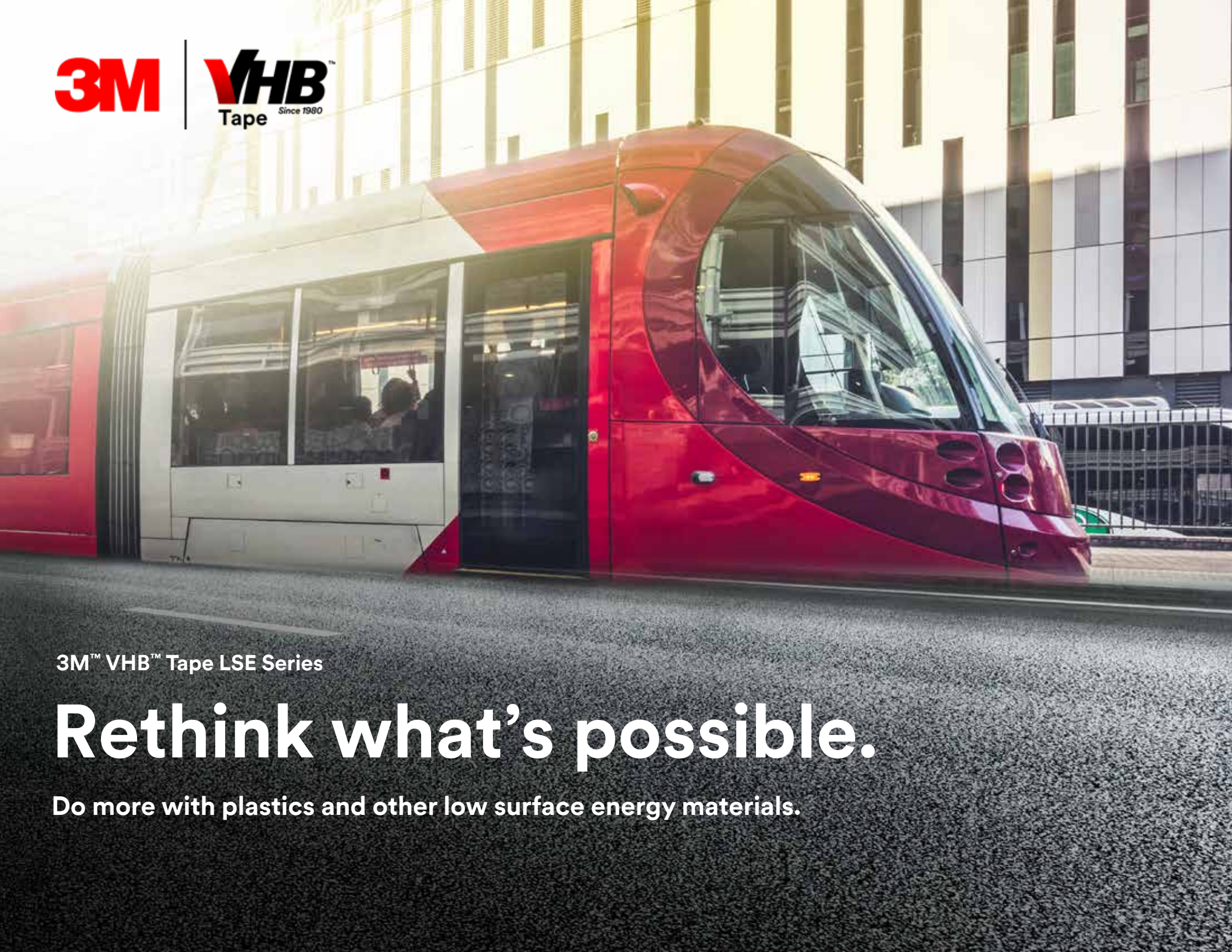


3M™ VHB™ Tape LSE Series

Rethink what's possible.

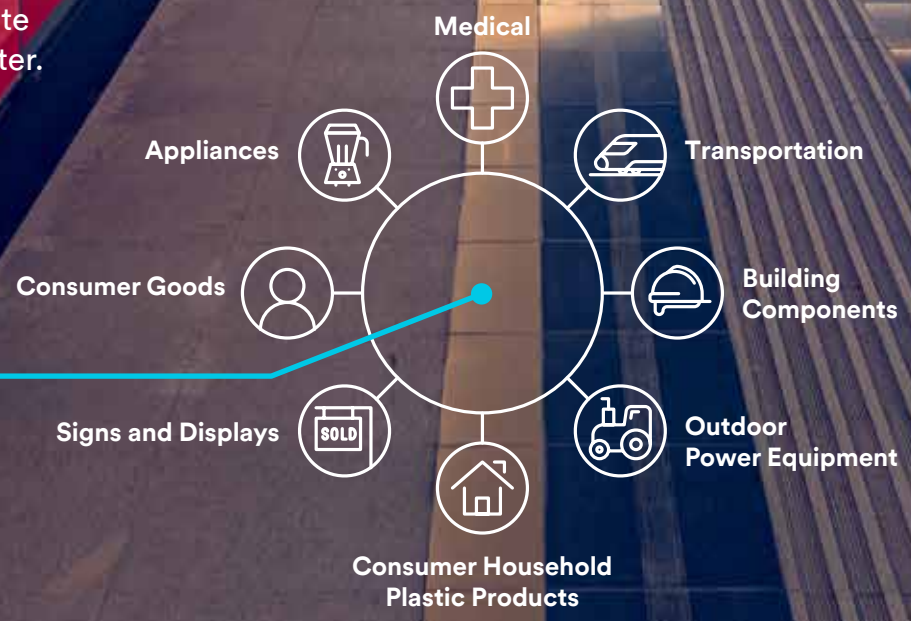
Do more with plastics and other low surface energy materials.

Push boundaries. Unlock potential.

Design for the ever-changing world.

Plastics, composites and other low surface energy (LSE) materials are integral to the future of manufacturing. Unfortunately, bonding these materials with adhesives can be difficult and often requires the use of a primer or adhesion promoter.

The 3M™ VHB™ Tape LSE Series is a double-sided acrylic foam tape developed specifically for LSE substrates such as polypropylene (PP), thermoplastic elastomers (TPE) and thermoplastic olefins (TPO), to create a long-lasting, high-strength bond without the use of a primer or promoter. Now you're free to choose the material that's right for your design.



Versatile Plastic Application

- Resilient
- Conformable
- Durable

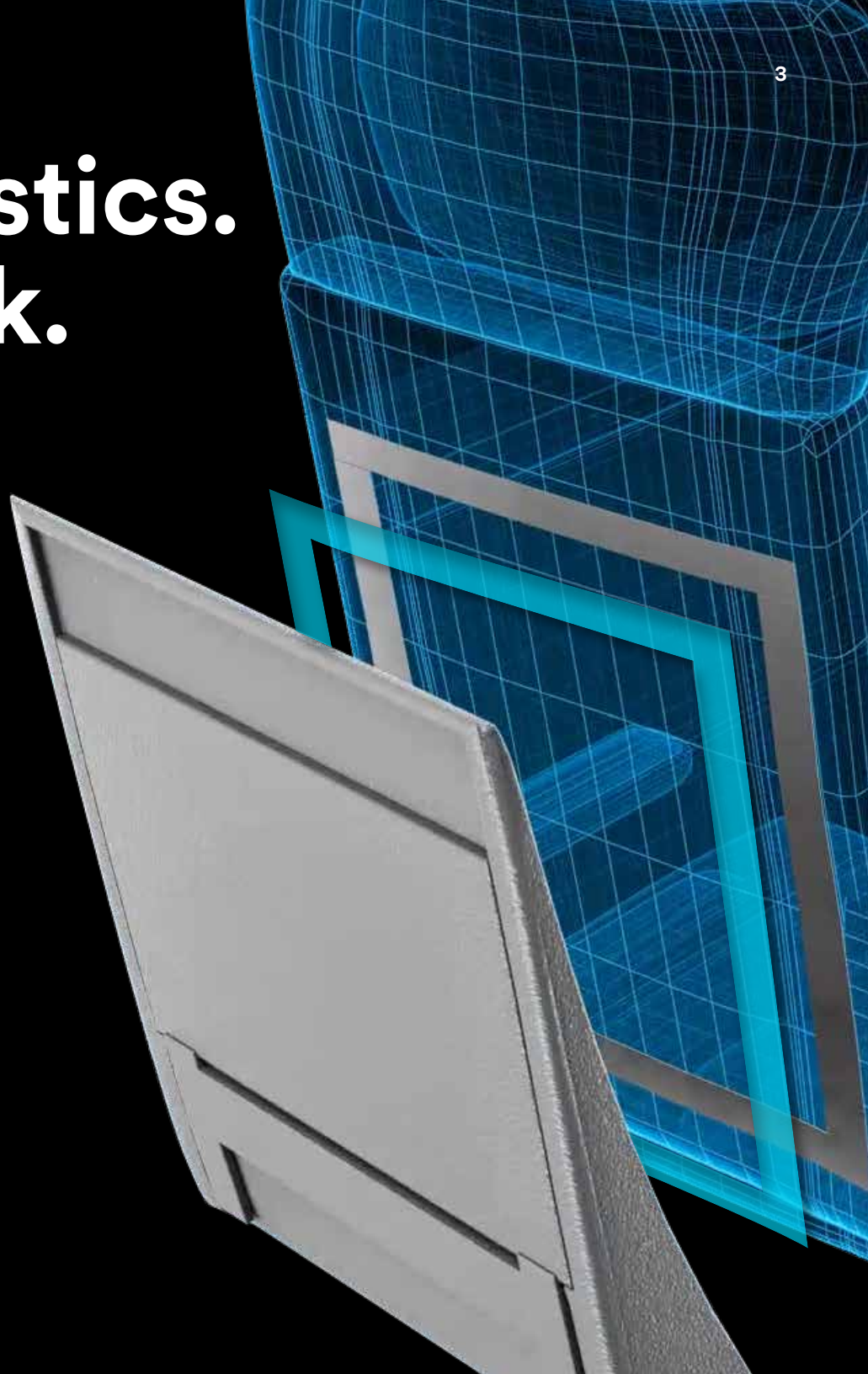
Designed for plastics. Designed to work.

Choose the latest in adhesive technology.

Low surface energy substrates are difficult to attach or bond to. Our 3M™ VHB™ Tape LSE Series performs differently, making long-lasting adhesion possible with virtually any material and turning your most cutting-edge design into reality.

Features of 3M™ VHB™ Tape LSE Series

- Very high bond strength in a lightweight tape
- No primer required for plastic-to-plastic applications
- Long-term durability outdoors
- Greater design flexibility
- Manufacturing high-precision convertible
- Lower manufacturing costs
- Reduced production time



Rethink how you design.

Maintain cutting integrity from the sketch to the consumer, eliminating distracting visible fasteners like screws and bolts. Improve aesthetics and push the limits on shapes, LSE material combinations and textures to create breakthrough designs faster and with more durability.

Streamline design aesthetic to bring your vision to life.

Rethink what you bond.

In addition to many LSE materials, the 3M™ VHB™ Tape LSE Series can also join a variety of many high and medium surface energy materials, including aluminum, steel, glass, plastics and painted surfaces. The 3M™ VHB™ Tape LSE Series provides resilient bonding solutions in just about anything you can think up.

- LSE substrates: polypropylene (PP), thermoplastic elastomers (TPE), thermoplastic olefins (TPO)
- MSE substrates: polycarbonate, high impact polystyrenes (HIPS), acrylic, nylons, ABS
- Composites: glass-reinforced plastics (GRP)/fiberglass, carbon fiber
- Polyester paint

Rethink how you build.

Increase the flexibility of the manufacturing line. Eliminate complicated screw fasteners. Save welding costs — no post-weld finishing/tooling steps. Skip unnecessary primers. Create a different kind of bond that actually gets stronger over time.

Plus, the 3M™ VHB™ Tape LSE Series can be used across a variety of application methods, from manual application to semi-automatic or robotic assembly.

Increase throughput and maximize speed to market.

Rethink your environment.

Made to live outdoors. Resists hot, cold and cycling temperature, UV light, moisture and solvents. Seals against environmental conditions. Low-temperature bonding with high initial tack at low temperatures on frost-free surfaces down to 0°C.

Ideal for low-temp bonding in:

- Unheated manufacturing facilities
- Outdoor power equipment
- Sports equipment

Long-term bonding in a wide range of temperatures.

Rethink how you compete.

It's time to disrupt the status quo. The industry's top talent is using plastics and smooth surfaces to reinvent their designs and rise above the competition in assembly, performance and appearance. Now you can, too.

Create attention-grabbing designs that help you stand out.

You'd be surprised what it can do.

Considering adhesives, ultrasonic welding or mechanical fasteners for permanent plastic assembly? Here's why you should think 3M™ VHB™ Tape LSE Series instead:

3M™ VHB™ Tape LSE Series benefits vs.		
Adhesives	**Ultrasonic welding**	**Mechanical fasteners**
▸ Immediate handling strength for faster assembly ▸ No messy bond lines ▸ No crazing or cracking of substrates ▸ Ensures consistency of delivery quantities ▸ Ability to pre-tape parts ▸ Reduced waste from open/ unused containers	▸ Bond non-compatible materials or delicate substrates ▸ Overcome challenging part geometry ▸ No upfront investment in ultrasonic welding equipment ▸ No incremental investments in horns & fixtures ▸ Removes post-weld finishing/ tooling steps ▸ Highly trained labor force not required ▸ Tape allows for safer application	▸ Bond dissimilar materials or delicate substrates ▸ Clean aesthetics ▸ Reduce bulk of final assembly ▸ Seals out water ▸ Decrease assembly time ▸ Tape allows for safer application

More choices. More possibilities.

Each 3M solution comes with its own set of strengths. For help solving your design challenge, contact a 3M representative at 1-800-362-3550.

Adhesive Type	3M Product	Key Features	Thickness
3M™ VHB™ Tapes	3M™ VHB™ Tape LSE-060	Acrylic foam tape that resists hot, cold and cycling temperatures, UV light, moisture and solvents, and seals against environmental conditions. Can be applied without a primer for increased productivity.	0.60 mm
	3M™ VHB™ Tape LSE-110		1.1 mm
	3M™ VHB™ Tape LSE-160		1.6 mm
	3M™ VHB™ Tape 5952	Specifically designed for good adhesion to medium surface energy plastics and powder-coated paints, metals and glass.	1.1 mm
3M™ Scotch-Weld™ Structural Adhesives	3M™ Scotch-Weld™ Structural Adhesive DP8010	Structural bonds can be achieved without special surface treatments such as chemical etching, plasma, flame, or corona treatment or priming.	--
3M™ Laminating Adhesives	3M™ Double Coated Tape 93010LE	High initial bond strength and shear strength on LSE substrates. Polyester film carrier provides dimensional stability to foams and other substrates to make tape easier to handle during slitting and die-cutting.	0.10 mm
	3M™ Double Coated Tape 93015LE		0.15 mm
	3M™ Double Coated Tape 93020LE		0.20 mm

Do more than ever before.

Think 3M™ VHB™ Tape LSE Series for a range of indoor and outdoor, commercial and consumer applications:

- Building components: signage, lighting, windows, décor
- Transportation: trucking, buses, campers, RVs, light rail
- Appliances: brand placards, internal components, small appliances, kitchen/cleaning tools
- Consumer goods: bottles, toys, games, décor, gifts, trash cans, organization
- Consumer household plastic products: network hubs, IoT sensors, cameras, thermostats
- Medical: output devices, scanners, accessories
- Outdoor power equipment: brand placards, instrument panels, decoration
- Signs and displays: illuminated signs, restaurants, hotels, retail

Learn more at 3M.com/VHB.

3M Science. Applied to Life.™

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